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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,598	09/04/2001	Tsuneo Sato	0649-0798P	2439
2292 7590 07/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER AMINI, JAVID A	
			ART UNIT 2628	PAPER NUMBER
			NOTIFICATION DATE 07/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

09/944,598

Applicant(s)

SATO ET AL.

Examiner

Javid A. Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8 and 17-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/30/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8 and 17-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharjya, US Patent number 5,809,213, and in view of Chen et al. Patent No.: 6,141,450, hereinafter Chen.

1. Claim 6.

A lookup table which is composed of color characteristic data which are indicating the relationship between supplied image data and output image data (col. 5, lines 43-50, a lookup table is generated from "augmented sample points" which correspond to "color characteristic data") which are determined to be impossible to be interpolated when a process for converting image data is performed (fig. 2a, col. 10, lines 40-63; points are sampled because many points are impossible to interpolate); similarly some points are non-linearly interpolated because they

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are impossible to linearly interpolate; and image data converting means for converting supplied image data by using said lookup table composed of the characteristic points into output image data (col. 5, lines 43-50; a linear interpolation function is used to convert the table value to a calibration values for a color reproduction system). Bhattacharjya discloses a transformed signals R' , G' , B' are subsequently provided to a three-dimensional lookup table formed in conjunction with figs. 2-6 and the final output signals R , G , B , are provided to printer 128, see col. 15, lines 34-38. Bhattacharjya teaches the color characteristic points representing a relationship between a first point and a final point and any points in between the supplied image data and output image data (i.e. noted in fig. 2A is a plot of measured color values, the solid line may be considered as a supplied image data, and the broken and dotted lines may be considered as an output image data. The first and final points may be 68a and 68e, respectively, and the color points 68b, 68c, and 68d may be represented a relationship between the first and the final points). Bhattacharjya in fig. 4 step 114 teaches identifying a restoring of the measured data values into the original data values.

Bhattacharjya does not disclose a multidimensional lookup table producing means for producing a multidimensional lookup table having only color characteristic points; nor does Bhattacharjya disclose restoring method for restoring the compressed multidimensional lookup table.

However, Chen teaches a multidimensional lookup table producing means for producing a multidimensional lookup table having only color characteristic points (i.e. noted in col. 1 lines 55-64 as a halftone process); Chen teaches restoring method for restoring the compressed multidimensional lookup table (i.e. noted in bridging paragraph in cols. 1 and 2, as an inverse

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halftone process). Chen in fig. 1 ref.# 20 is considered as a typical system identification in signal processing.

It would have been obvious to one skilled in the art to modify Chen into Bhattacharjya in order to provide an image compression device to obtain a binary image rearranged as a base layer (thus producing high compression ratios) and reconstructs a predicted image from the binary image so that the difference between the gray-scale image and the predicted image is encoded as an enhancement layer (thus producing quality images).

2. Claims 7, 8, and 17 are rejected with a similar reason as set forth in claim 6, above.
3. As to claims 18-19, claims 18-19 contain color characteristics of a digital camera. The prior arts do not disclose a digital camera. However, it would have been obvious to a person skill in the art to modify Bhattacharjya to be able to identify the target device, e.g., PC, PDA, printer and etc.
4. As to claims 20-21, claim 20 claims the step of the color characteristic data is synthesized with image data that is obvious to a person skill in the art. Claim 21 claims the identifier identifies a repairing method, Bhattacharjya at col. 5 lines 66-67 teaches the claim limitation.
5. Claims 22-26
Claims 22-26 are rejected with similar reason as set forth in claims 6 and 7, above. Applicant in claims 23-26 claimed that color intensity data is included of Red, Green and Blue color data. It would have been obvious to a person skill in the art to recognize the color intensity includes RGB. Bhattacharjya illustrates the claim limitations in fig. 6.

Conclusion

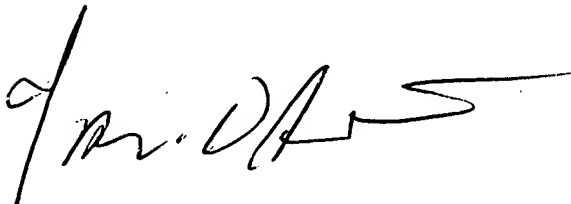
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Javid A Amini
Examiner
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J.A.

A handwritten signature in black ink, appearing to read 'Javid A. Amini', with a stylized flourish at the end.